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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/404,715	09/24/1999	TOSHIHISA KUMAKURA	511.37656X00	8711
20457	7590	03/18/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			REDDICK, MARIE L	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 03/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/404,715

Applicant(s)

KUMAKURA ET AL.

Examiner

Judy M. Reddick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-14 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-14 and 20 is/are rejected.
- 7) ☒ Claim(s) 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/03/03.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under Ex Parte Quayle, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 12/03/03 has been entered.

Response to Amendment

2. Applicant's amendment filed 12/03/03 has been fully considered with the following results. After a careful review of the claimed invention coupled and based on the newly discovered prior art and 112, 2nd paragraph issues, the indication of allowability of claims 7-14 and 20 is herein rescinded. An apology is extended to applicants for any inconvenience that this may have caused.

Information Disclosure Statement

3. The information disclosure statement filed 12/03/03 has been considered and scanned into the file.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 9-14 & 20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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- A) The recited "triacyloyloxyethyl phosphate" per claim 9 constitutes indefinite subject matter as per it not being readily ascertainable as to how said compound further limits the antecedently recited "polyfunctional acrylate or polyfunctional methacrylate".
- B) The recited "acetacetal" per claim 10 constitutes indefinite subject matter as per said term, in this context, not being readily ascertainable. Does not applicant intend "acetoacetal"?
- C) The recited "at least one of the polyfunctional acrylate compound and the polyfunctional methacrylate compound" per claim 20 constitutes indefinite subject matter as per the non-express establishment of proper antecedent basis.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 14 and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rendleman et al (U.S. 3,616,195).

Rendleman et al teach metal clad products, useful for printed circuits, and produced with a hydrocarbon base through the use of a two-coat adhesive system wherein each coating contains a combination of a normally thermoplastic, polyvinyl polymer and a thermosetting resin and the coating next to the hydrocarbon base contains a free radical producing catalyst. More specifically, Rendleman et al teach adhesive compositions, for metal foils, defined

basically as containing a blend of a) normally thermoplastic resins such as those which include polyvinyl esters, ethers, acetals and alcohol and the like and particularly, the polyvinyl acetals derived from polyvinyl alcohol and an aldehyde such as formaldehyde, butyraldehyde and the like which have some unreacted alcohol groups in the polymer and b) thermosetting resins such as those which include phenolic resins, epoxy resins, urea resins and the like wherein, the ratio of the thermoplastic to thermosetting resin can be varied widely and is usually based on a weight ratio in the order of about 4:1 to 1:4. Rendlemann et al further teach that these components are usually applied in a suitable solvent to form each coating. Rendleman et al further teach (paragraph bridging cols. 1 and 2) that the process associated with the metal clad product with a hydrocarbon base involves coating a metal foil/oxide, such as a copper foil, with a blend of a normally thermoplastic, polyvinyl polymer such as a polyvinyl acetal and a thermosetting resin such as an epoxy resin and then with a second coating of the blend containing a free radical producing catalyst which includes organic peroxides. The multicoated metal foil is then bonded to a hydrocarbon laminate or other hydrocarbon substrate to produce a metal clad hydrocarbon composite. Rendleman et al @ col. 2, lines 25-28 and 39-49 teach further that in addition to the use of the catalyst in the second coating, its use in the first coating usually provides improvement compared to the absence in either coat and also that it is advantageous to include, in the first coating, along with the peroxide, reactive multifunctional monomers having 2-4 reactive groups such as trimethylolpropane trimethacrylate. More specifically, Rendleman et al per Run 1 teach coating a copper foil with a solution of at least a phenolic resin, polyvinyl butyral, triallyl cyanurate, trimethylolpropane trimethacrylate and dicumyl peroxide and drying. See Run I, TABLE NO. I and RUN II, TABLE NO. II. See also the Abstract, cols. 1-2 and the claims of Rendleman et al. Rendleman et al therefore anticipate the instantly claimed invention with the understanding that the adhesive composition of Rendleman et al overlaps in scope with the claimed adhesive composition. While Rendleman does not qualify the coating as a varnish, its use as such would be expected since the coating composition of Rendleman et al is essentially the same as and made in essentially

the same manner as the claimed composition. The onus to show that this, in fact, is not the case is shifted to applicants. It has been held that where applicant claims a composition in terms of function, property or characteristic where said function is not explicitly shown by the reference and where the examiner has explained why the function, property or characteristic is considered inherent in the prior art, it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that the burden is placed upon the applicant to provide clear evidence that the respective compositions do in fact differ. In re Best, 195 USPQ 430, 433 (CCPA 1977); In re Fitzgerald et al., 205 USPQ 594, 596 (CCPA 1980). Furthermore, the discovery of a new property or use of a previously known composition, even if unobvious from the prior art, cannot impart patentability to claims to a known composition. In re Spada 15 USPQ 2d 1655 (CAFC 1990). "The absence of a disclosure relating to function does not defeat a finding of anticipation. It is well settled that the recitation of a new intended use for an old product does not make a claim to that old product". In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431(Fed Cir 1997).

Further, any additional or particular claim parameters which may not be specifically set out in the references are considered to be inherent in the reference products or not to involve anything unobvious absent a showing to the contrary.

Even if it turns out that the Examiner has somehow missed the boat and the claimed invention is not anticipated over Rendleman et al, it would have been obvious to the skilled artisan to cull, from the disclosure of Rendleman et al the precisely defined adhesive composition, as claimed, as per such having been within the purview of the general disclosure of Rendleman et al and with a reasonable expectation of success.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a

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whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 8, 9, 12/(7-9) & 13/(7-9) rejected under 35 U.S.C. 103(a) as being unpatentable over Rendleman et al.

The disclosure of Rendleman et al for all that it teaches as applied to claims 7, 14 and 20 as stated in the rejection supra. Further, the disclosure of Rendleman et al differs basically from the claimed invention as per the absence of a specific disclosure to an embodiment meeting the limitations of the composition defined per claim 8. However, Rendleman et al is generic thereto and, as such, necessarily implies that any adhesive composition, in terms of contents of the components, including the claimed adhesive composition, would have been operable within the scope of patentees invention and with a reasonable expectation of success. Further, as to the further additive limitations per claims 12 and 13, the Examiner takes notice that these additives are known as conventional for use in adhesive compositions.

Claim Objections

9. Claims 11 and (12-14)/(10 and 11) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 10 would be allowable if rewritten and/or amended so as to obviate the 112 2nd paragraph issue raised supra. One having ordinary skill in the art would not have been endowed with any motivation to extrapolate, from the disclosure of Rendleman et al, the precisely defined adhesive composition per claim 10 and claims dependent therefrom with any reasonable expectation of success.

Response to Arguments

10. Applicant's arguments with respect to the allowance of claims 7-14 and 20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (571)272-1110. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Judy M. Reddick
Primary Examiner
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JMR *JMR*
03/15/04